

shaped or keyshaped. The key-shape may be used to prevent rotation of the head **108**. The cylindrical shape of the second washer member **608** facilitates the rotation of the head **108**. The pusher wire **610** extends from the second washer member **608**. The pusher wire **610** is attached to the wire form **600**. The pusher wire **610** may be attached to the wire form **600** by, for example, a weld, a crimp, a coupling, an adhesive, or other means. Each of the elongated shaft member **106** and the pusher wire **610** may be constructed from a shape memory material, such as Nitinol™. Other metals that may be used include, but are not limited to, nickel, copper, stainless steel, cobalt, vanadium, chromium, iron, and super-elastic metallic alloys. The shape memory material used to construct the elongated shaft member **106** and the pusher wire **610** allow for bendability and high column strength when constrained. The elongated shaft member **106** is deflectable off of the longitudinal axis, such that the elongated shaft member **106** is able to transmit torque to manipulate the head **108**. In another embodiment, the elongated shaft member **106** is a coil to allow greater flexibility. The coil may be covered by, for example, a flexible sleeve.

The pusher wire **610** extends to the needle carrier **130**, which is encased by the head **108**. The head **108** is comprised of two parallel or substantially parallel flat outer surfaces. The head **108** includes a channel **620** to prevent binding of the pusher wire **610**, and facilitate a smooth transition between the pusher wire **610** and the needle carrier **130**. The securing member **612**, such as a rivet, is used to couple the two substantially parallel heads **108**.

In various embodiments, other means may be used to construct the medical device **100**, including, but not limited to, glue, welding, sonic welding, insert molding, or use of fasteners. The elongated shaft member **106** can be of a shape other than tubular or cylindrical, such as elliptical or rectangular. The shape and material chosen for the medical device **100** will vary to suit a particular application.

Referring to FIG. 7A, in one embodiment according to the invention, the medical device **100** may have the following dimensions. These dimensions are merely exemplary and other dimensions may be contemplated. For example, a length **700** of the actuator **102** is about 3 inches. A width **701** of the actuator **102** is about 0.86 inches. A length **702** of the handle **104** is about 5.5 inches. A length **703** of the proximal end **110** of the handle **104** is about 2 inches. A diameter **704** of the handle **104** is about 0.345 inches. A length **708** of the elongated shaft member **106** from the proximal end **114** to the distal end **116** (FIG. 1A) is about 5.25 inches.

Referring to FIG. 7B, an inner diameter **710** of the elongated shaft member **106** is about 0.06 inches. An outer diameter **712** of the elongated shaft member **106** is about 0.08 inches. A length **714** of the head **108** is about 1.5 inches. A width **716** of the head **108** is about 0.46 inches, a width **718** of the opening **128** is about 0.29 inches, and a length **720** of the opening **128** is about 0.4 inches. Referring now to FIG. 6B, a thickness **722** of the head **108** is about 0.20 inches when the two portions are coupled together.

Referring to FIG. 6B, 7A, and 7B, the length **714** of the head **108** is measured along the longitudinal axis of the medical device **100**. The maximum width **716** of the head **108** is measured in a first direction that is transverse to the longitudinal axis of the medical device **100**, and the thickness **722** of the head **108** is measured in a second direction that is perpendicular to the first direction. The length **714** of the head **108** is greater than the maximum width **716** of the head **108**. The maximum width **716** of the head **108** is greater than the

thickness **722** of the head **108**, and the thickness **722** of the head **108** is greater than the outer diameter **712** of the elongated shaft member **106**.

It will be understood that various modifications may be made to the embodiments disclosed herein. Therefore, the above description should not be construed as limiting, but merely as illustrative of some embodiments according to the invention.

What is claimed is:

1. A medical device for use in a transvaginal implant procedure, comprising:

a handle having a proximal end and a distal end, the handle including an actuator configured to be manipulated by an operator of the medical device;

an elongated shaft member including a proximal tubular portion, a tapered portion, and a distal tubular portion, the distal tubular portion having a diameter smaller than the proximal tubular portion, the distal tubular portion being deflectable from a longitudinal axis of the elongated shaft member, the handle being coupled to the proximal tubular portion, the elongated shaft member defining a lumen and extending from the distal end of the handle, the diameter of the distal tubular portion being minimally greater than a diameter of a wire form extending longitudinally within the elongated shaft member, the elongated shaft member extending along the longitudinal axis when the elongated shaft member is disposed in a straight or a substantially straight configuration, the wire form including a pusher wire portion, a first end portion of the distal tubular portion being enclosed by and extending into the tapered portion; and a head coupled to the distal tubular portion of the elongated shaft member, a second end portion of the distal tubular portion being enclosed by and extending into the head, the pusher wire portion extending into the head, the head having a length measured along the longitudinal axis, a maximum width measured in a first direction transverse to the longitudinal axis, and a thickness measured in a second direction perpendicular to the first direction, the length being greater than the maximum width and the maximum width being greater than the thickness, the thickness being greater than the diameter of the distal tubular portion of the elongated shaft member,

the head including a needle carrier configured to receive a needle that can be coupled to a suture or to a portion of a pelvic floor repair implant, the head further including a needle catch and a needle exit port, at least a portion of the needle carrier exiting the needle exit port when the operator manipulates the actuator, the needle catch configured to receive and retain the needle carried by the needle carrier.

2. The medical device of claim 1 wherein the handle and the proximal tubular portion includes a spring, and the actuator is configured to cause compression of the spring when the actuator is manipulated by the operator of the medical device.

3. The medical device of claim 1 wherein a length of the distal tubular portion is about 5.5 inches.

4. The medical device of claim 1 wherein the wire form moves longitudinally within the elongated shaft member which causes the needle carrier to exit the needle exit port when the operator depresses the actuator.

5. The medical device of claim 1 wherein the distal tubular portion of the elongated shaft member has an outer surface that is exposed such that the operator can touch the outer surface while manipulating the actuator during the transvaginal implant procedure and is deflectable off the longitudinal axis by manipulation by the operator.